A black and white photograph of a horse and a herd of cattle in a mountainous landscape. The horse, a light-colored breed with a dark mane, is in the foreground on the left, facing right. It is wearing a halter and has a lead rope that extends down the page. In the background, a herd of cattle is grazing on a grassy slope. The landscape features rolling hills and mountains under a cloudy sky.

THE GRAZING BULLETIN

DEPARTMENT OF THE INTERIOR

DIVISION OF GRAZING

JUNE 28, 1939

Belden, Pitchfork, Wyoming

ADMINISTRATIVE ORGANIZATION OF THE DIVISION OF GRAZING
UNITED STATES DEPARTMENT OF THE INTERIOR

Harold L. Ickes, Secretary of the Interior
Harry Slattery, Under Secretary, in Charge of Grazing
R. H. Rutledge, Director of Grazing
Washington, D. C.

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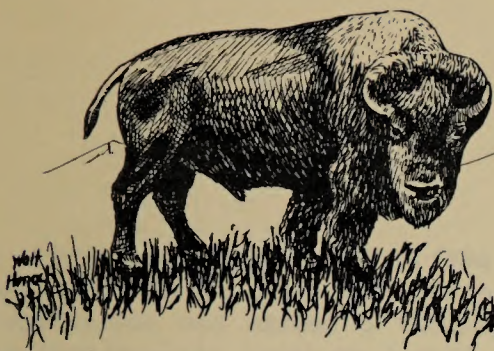
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Rawlins, Wyoming.



Secretary Ickes joins Director Rutledge in presenting a gavel to Representative E. T. Taylor, of Colorado, on the fifth anniversary of the passage of the Taylor Grazing Act.



THE GRAZING BULLETIN

Harold L. Ickes
Secretary of the Interior

Harry Slattery
Under Secretary

R. H. Rutledge
Director of Grazing

J. Q. Peterson
Editor-in-Chief

June 28, 1939, Vol. 2, No. 4

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FOREWORD

On this fifth anniversary of the passage of the Taylor Grazing Act, I take pleasure in again expressing personal confidence in this great act in the interest of National conservation. Cognizant of the splendid opportunity provided by this legislation for doing good, and not unmindful of the tremendous task ahead, I am nonetheless encouraged by the forceful and worth-while accomplishments that have been made in those five short years.

I am especially grateful to the stockmen of the West whose sincere cooperation has been an important factor in the improvement and preservation of these all-important resources for continued beneficial use.

Harold Z.acher

Secretary of the Interior.

INTRODUCTION

The Taylor Grazing Act is five years old. This act ushered in a new era of national conservation and marked a turning point in the Government's attitude toward its public lands. Embodying principles of democratic cooperative effort, the act approved by President Roosevelt on June 28, 1934, enabled the Government to measure the present and contemplate the future with full realization of the task that is ahead.

Five years have brought encouraging results. The foundation for coordinated use, improvement, and development of the public range has been laid. The design of a complete organization to carry out the largest conservation program ever attempted in the Western States has been provided by the Secretary of the Interior in the Division of Grazing.

The program of range rehabilitation and stabilization of the livestock industry has invoked the interest and cooperation of a large number of people residing in the 50 grazing districts already established. The pattern of landownership, the varied conditions that exist in grazing districts, and the very foundation of local economy that is tied up in the western grazing lands require the full scope of cooperation that is provided for in the law. For that reason the

administrative setup follows a decentralized plan with a closer knit force of field officers organized on a State-unit basis.

Classification of lands, improvement of the range, adjudication of grazing privileges, the combating of destructive elements, and the management of the entire conservation problem constitute major objectives of the Division. Assisting in this work are more than 600 advisory-board representatives of livestock and wildlife interests who are directly connected with the program.

The Division of Grazing is redoubling its efforts for greater accomplishments in the interest of national public benefit while the livestock industry goes forward with confidence and optimism.

In commemorating the fifth anniversary of the Taylor Grazing Act, it seems fitting that the officials who chart the course of activities in the field should explain some of the accomplishments in shaping the program designed to bring about more forage and water, fatter livestock, clearer streams, better wildlife conditions, fewer fires and floods, and better living conditions in the West not only for the present generation but also for the generations to come.

THE TAYLOR GRAZING ACT IN UTAH

by Chesley P. Seely, Regional Grazier
Region No. 2, Utah

In the development of Utah, from the time of the earliest settlers until the passage of the Taylor Grazing Act, the public lands had gone through a process of selection. The first lands to pass to private ownership were the more productive agricultural lands. With the growth of population, most of the agricultural lands were taken up. In the meantime the livestock industry grew to such proportions that the attention of the settlers was directed to the more productive range lands. During this time the more productive timber and range lands that remained in the public domain were being very seriously damaged, by promiscuous cutting of timber and overgrazing and unregulated use, which brought out the need of some control over these lands to keep them from losing their usefulness.

Most of the people of Utah are dependent on the livestock industry for a livelihood. The water, soil, and forage must be conserved and wisely used to assure continued existence of the social and economic structure.

By 1934, when the Taylor Grazing Act was passed there remained about 25 million acres of public land in Utah, roughly one-half of the State's area. This has been included in eight grazing districts which blanket the State on both sides of the Wasatch Range.

When the administration of grazing districts got under way in 1935 there were on file over 8,000 applications for grazing privileges therein. When these applications were presented to the advisory boards for

recommendation it was found that they represented many more applicants and a greater number of livestock than had made use of the public range heretofore. Of these 8,000 applications, 6,721 were granted licenses for a total of 2,675,480 head of livestock. This brought about the need for more accurate information and study of the ranch properties and livestock operations, to adjudicate grazing privileges properly, which resulted in the establishment of the range survey unit of the Division of Grazing in 1935.

It has been the policy of this region to endeavor to take care of the present livestock industry as nearly as possible and still give the public range the necessary protection under which it can continue to produce and improve. In following this policy the number of licensees has been reduced from 8,000 to 5,206. The eight grazing districts have been divided into 127 units and the units into some 361 group, community, and private allotments, so as to regulate the distribution of the livestock using the range. With a district grazer and a grazer aide in each district office at the present time, working on administrative problems with the assistance of the range survey unit and the improvement section, the following results have been accomplished to date:

The range survey and drafting office is staffed by eight range examiners and three supervisory personnel assisted by 35 CCC enrollees. They have collected information and made reports on some 4,540 ranch units. A complete survey of the base properties in Utah Grazing District No. 6 was completed by the end of the 1938 fall season. Surveys in Utah Grazing District No. 2 should be completed by the end of the 1939 field season. During the field season of 1938 a survey of the range resources was started in Utah Grazing District No. 6 and at the close of the fall season an inventory of the forage resources was completed on 848,619 acres. At the inception of the range survey unit a drafting office was set up for the purpose of preparing maps. These are primarily base, status, and grazing type maps. Base and land status maps have been prepared for the entire region, and grazing type maps have been prepared for approximately 40 townships covering some 900,000 acres.

When grazing districts became organized in 1935, seven CCC camps were installed. This number has grown to 15 and for better correlation of the entire conservation program they have been placed under the direct supervision of the regional grazer. Among the accomplishments of these camps are listed the following major projects which have contributed immeasurably to the conservation of the resources and the benefit of the livestock industry:

<u>Project Designation</u>	<u>Work Completed to May 1, 1939</u>
Bridges, Vehicle	69
Fences	28,121 rods
Storage Facilities	113,146,000 gal.
Wells, Inc. Pumps and Pump houses	20
Cattle Guards	10
Corrals	87
Springs	140
Small Reservoirs	55
Truck Trails or Minor Roads	1,217.89 miles
Trails, Horse or Stock	152.65 miles
Check Dams, Permanent	1,186
Pipe and Tile Lines and Conduits	71,145 lin. ft.
Water Control Structures (not dams)	324
Fighting Forest Fires	5,009 man-days
Seed Coll. (Other than Trees)	1,000 pounds
Erad. Pois. Weed or Ex. Plants	48,980 acres
Experimental Plots	23
Insect Pest Control	6,260 acres
Maps and Models	2,674 man-days
Marking Boundaries	1,561 miles
Rodent and Predatory Animal Control	766,191 acres
Surveys	21,691 man-days
Truck Trails Maintenance	3,824 miles

Although there has been no great decrease in the number of stock grazing on the public domain, but through shortening of grazing seasons and developing of waters, control of rodents, and opening up areas that were only partly used in the past, and assisted by improved moisture conditions the public range in Utah has shown improvement in the past four years. This, however, has been slow to date, but with the combined efforts of these various branches of the region as now set up, with the assistance and advice of 120 advisory board members and wild life representatives all directed in a correlated program toward the objective of improving the public range, stabilizing the livestock industry, and the propagation of wild life, the foundation is laid for improvements and developments of far-reaching results on the public ranges in Utah.

PROTECTION AND PROFIT

by L. R. Brooks, Regional Grazier,
Region No. 3, Nevada and California.

Region 3 comprises the States of Nevada and California, including five grazing districts in Nevada and two in California. Within these districts is a total of some 35,000,000 acres of public lands on which over 2,000,000 head of livestock owned by approximately 2,700 stockmen are grazed for some portion of each year.

Administration of grazing on the above lands is divided into three heads, namely, range management, range surveys, and range improvements.

The licensing of livestock for range use, the holding of range line meetings with stockmen for range adjudication, and the work necessarily involved in enforcement procedure come under the head of range management. Other work accomplished under this head includes the cooperation of the Division of Grazing with Federal and State agencies and with companies or private individuals in matters pertaining to proper range use. This region includes both summer and winter ranges, and for that reason licenses are issued for both seasonal uses; the summer grazing period being considered as April 1 to October 31, and the winter period November 1 to March 31. Licenses are issued annually in cooperation with local advisory boards, who make recommendations on applications.

The range survey branch of our work includes field and office studies of carrying capacities. The range surveys work has been carried out under the general direction of a range examiner in charge. Range examiners have been engaged to date principally in making commensurate property and range carrying capacity surveys involving privately owned lands throughout the grazing districts. These surveys have supplied administrative officers with a volume of information relative to the carrying capacity of owned and leased property, together with certain other facts and information concerning past and present ranch and range livestock operations of the various range users.

In 1936 it was found necessary to establish a CCC spike camp, namely Camp Idlewild, to provide a drafting office and assistance in compiling and drafting range survey information. Most of the work at Camp Idlewild is done by CCC enrollees selected from our CCC camps for duty on the basis of

experience, education, and character. These enrollees are trained in the technique of compiling and drafting base maps, in working with land status and ownership records, and are given various other types of technical training, which enables many of the boys to become quite proficient in this line of work. Of the 226 enrollees selected for duty at Camp Idlewild to date, 76 have been discharged to accept civilian employment. Many of them obtained these positions through the training and associations developed while they were enrolled at Camp Idlewild.

Under range surveys, mention should be made of a cooperative range and economic survey which is now being conducted by nine State and Federal agencies in northeastern Nevada, comprising the area included in Nevada Grazing District No. 1. The objective of this study is to ascertain the best use of the natural resources of northeastern Nevada which will maintain without impairment the productive resources of the area while permitting their maximum use. Range survey parties have been placed in the field by the Division of Grazing as a part of this cooperative project. A complete inventory of the range and ranch resources of the district will have been made when the project is completed. The cooperative study began in the fall of 1937, continued throughout the summer of 1938, and is again under way this year. Approximately 65 per cent of the field work was completed prior to the opening of the 1939 field season. The information available at the conclusion of the survey will be sufficient on which to base long-term permits instead of the temporary licenses now being issued.

The range improvement work of the Division of Grazing assists range management by actually placing on public ranges certain physical improvements such as water developments, drift fences, truck trails, et cetera, all of which are material aids in the control of range use and in the practices of range conservation. In Region 3 this is done by the use of 2 CCC camps in California and 17 in Nevada scattered over the various grazing districts.

The winter during the twelfth enrollment period, terminating March 31, 1939, was comparatively open, thereby enabling many of our northern camps to proceed with their work

programs without too much interruption because of bad weather. One type of project which it was possible to execute to advantage during the past winter was that of cutting posts in the vicinity of camps where posts were available, for use in building fences in all parts of grazing districts, including those in which no posts are available. Some 15,000 posts were cut during the past winter, principally from three camps in Lincoln, White Pine, and Elko Counties, Nevada.

Conservation and protection of wildlife on the public ranges in this area has been given much attention through cooperation with the Biological Survey and State agencies interested in this problem. Our 2 camps in Clark County, Nevada, assisted the Biological Survey in the construction of wild fowl ponds in the Moapa Valley in order that advantage might be taken of the rising water of Lake Mead, soon to flood the area. These two camps also aided the Biological Survey in the building of truck trails into the Sheep Mountain Game Range in Clark and Lincoln Counties, Nevada. Within the past month, steps were also taken by our northern Nevada camps to make a survey of water development projects wherein protection for the feeding and propagation of sage grouse, and other game birds might be afforded through the fencing of small areas in the vicinity of water developments already constructed or contemplated. From one of our California camps, assistance was recently given State and Federal agencies in making a count of deer and antelope on winter ranges through the use of Division of Grazing enrollees.

STATION KNII, BURNS, CALLING

by Paul Stafford, District Grazier,
Region No. 4, Oregon

From Ontario to Bend and Lakeview and south from Baker to McDermitt lies a vast expanse of sparsely populated desert. Here and there, over the sage, thriving ranches are scattered. For the most part the only connection with centers of business is by the dirt roads winding mile upon mile among the rimrocks over the rocky desert. In the very heart of this thoroughly "stock" region is located the headquarters of Region No. 4—Burns. To assist in developing the vast resources of this area, CCC camps are situated throughout these 12,000,000 acres of public domain.

The winter is usually the season during which many requests are received for emergency work in the saving of human life and the saving of livestock, both sheep and cattle, from starvation during heavy snows and severe storms. The past winter was no exception, and our camps did much of this type of work. Another type of emergency work which is now being done by our Nevada camps is that of assisting State authorities in the eradication of Mormon Crickets and grasshoppers from range areas. There are 5 camps now engaged in cricket-control work and 2 in grasshopper-control work.

Other work projects often done by our CCC camps include the eradication from range areas of poisonous plants such as Death Camas, Larkspur, Cocklebur, and noxious weeds such as White Top.

Some of the most common type of projects accomplished by our camps, all of which open up new range areas or permit better seasonal use, include drift fences and allotment fences, both of which permit better range use than could be had otherwise; truck trails which open up new range areas and permit their use in severe winters when otherwise they could not be used; water developments such as storage tanks, dams, reservoirs, wells, and spring development, all of which make new range areas accessible, thus permitting relief from overcrowded ranges without a stock reduction which would be necessary without such water developments.

When these strategic points were established the lack of instant communication was brought sharply into the foreground. Today, however, this hindrance has been overcome and each camp is brought into contact with the regional office at the moment it is required. This feat has been accomplished through the installation of radio transmitter and receiver sets in those isolated camps and also the regional office.

To date we have mounted radios in Camps DG-68 at Brothers; DG-91 at Alkali Lake;

DG-130 on the edge of the Malheur Bird Refuge; DG-89 at Harper; and at DG-126 near McDermitt, Nevada. The remaining four camps are easily accessible by telephone. These sets cost approximately \$146 per unit and a maintenance charge of \$15 has been estimated. Besides their constancy and dependability these sets have saved in one instance alone \$3,000. This example is demonstrated by the Alkali Lake camp for which we would have been obliged to construct a telephone line for a distance of 40 miles at a cost of \$75 per mile. Between headquarters and McDermitt and Harper, considerable extra charge in tolls has been avoided.

The 24-watt regional office set which is more powerful is left open to the air at all times and, in this manner in the event that an emergency arises, any camp or spike camp with a radio may receive attention immediately without waiting for the regular schedule of contacts twice daily.

With the installation of radios in the remaining camps the cost of telephone and telegraph in Region No. 4 will be practically eliminated. Moreover, this "finger-tip" service is unequalled anywhere.

The Boise District Commander (U. S. Army) has informed us that it is now his intention, after seeing the success of the Division of Grazing in this enterprise, to install radio communication between all camps in the Boise District and headquarters. The Vancouver and Medford Districts have already followed our example.

Today the dependency upon slow mails has been eliminated for the most part and news leaps back and forth with lightning rapidity. Let us watch the radio in action.

The dry, hot desert winds have been blowing over the parched range for days and the whole desert sizzles with the intense heat. In the regional office the whispering drone of the radio receiving set is suddenly broken by the crisp voice on the air.

"KNIJ, DG-68, calling KNII, Burns headquarters, KNIJ calling KNII. Come in Burns."

Instantly the clerk on duty snaps to the emergency. On the return call the Brothers camp crackles, "Reporting raging prairie fire on Horse Ridge. Spreading northwest rapidly. Need 100 additional men immediately. Am standing by. That is all."

A hurried contact is made with the Forest Supervisor at Bend and the message is repeated to him. Under a cooperative agreement this forest supervisor orders half of the men at his nearest camp to the fire scene. In 25 minutes the relief is on its way. Meanwhile, after a check of ownership in the endangered zone, more calls warn ranchers in the path of the fire.

At the fire, portable sets are being set up and tuned to the Burns frequency. The regional set learns of equipment needed, progress of the fire, and is used as a relay station between various units at the scene if the area is large. Before long this concentrated assistance slows the fire and it is controlled. Much more range is saved by this efficient service and stock as well as humanity owe tribute to such instantaneous action.

Yes, these small radio sets have innumerable uses in advancing the conservation program of the Division of Grazing.

IN APPRECIATION

The fifth anniversary of the Taylor Grazing Act constitutes a significant milestone in the progress of conservation in the West, brought about by a half-decade of successful administration by the Secretary of the Interior and the Division of Grazing.

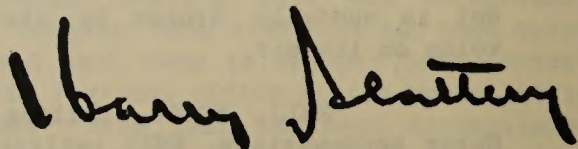
That this progress has been achieved through a program involving a greater degree of cooperation than ever before between the people most directly affected by its objectives, and the Government seeking to translate those objectives into concrete accomplishment, once again demonstrates the soundness of the fundamental principles of democracy.

Stockmen of the West have long known the need for conservation on the range. Since 1910, various attempts had been made to provide a method by which 120,000,000 acres of Federal range land might be re-vitalized and protected for the prudent use of generations yet to come.

But it was not until the Taylor Act was enacted in 1934, largely through the efforts of the Secretary of the Interior, that this much-desired element in the national conservation program was realized.

For many years, it has been my privilege to work with the people of the West in the advancement of this program.

For this reason, I take particular pleasure in extending to them my appreciation for their cooperation in effecting the purpose of the Taylor Grazing Act, which has helped make possible this anniversary edition of The Grazing Bulletin.



HARRY SLATTERY

Under Secretary of the Interior.

FORAGE AND FEED IN IDAHO GRAZING DISTRICTS

by J. E. Stablein, Regional Grazier
Region No. 5, Idaho

Idaho is one of the few States which can boast a panhandle. It extends south from the Canadian border to within 100 miles of our field headquarters located at Salt Lake City, Utah. The north half is narrow in width, and it is from this that we get the name panhandle. It has a broad, substantial southern base resting on the north borders of Utah and Nevada. We have large forest reserves which blanket the central and north part of the State, and four grazing districts covering the southern part. The timber country embraces extensive, more or less unexplored primitive areas, where nature has not yet been subdued by human encroachment. Almost inaccessible timber wilderness in a high rugged country with sparkling icy streams, big game, and native trout is a surprising reality in a vanishing western frontier country. The Federal range is located in the southern half of the State, and there in our own grazing districts we have elk, deer, and antelope grazing in common with the cattle, sheep, and horses of the western stockmen.

In connection with the conservation of wildlife in grazing districts, we have already transplanted about 800 beaver from irrigation canals where they do considerable damage, to small stream channels in grazing districts where they are needed and do a tremendous lot of good.

The Snake River might be called the lifeblood stream of Idaho. It is the principal tributary to the Columbia River. Rising in the Yellowstone Park and great geyser country on the east-central border of the State, it forms a horseshoe pattern in following a south, west, and north course through irregular and deep channels cut into a volcanic formation which consists of successive layers of lava flow on top of which is the fertile soil of southern Idaho. Along the Snake River, numerous irrigation and power dams have been constructed to provide water and power for highly productive land. On these projects there has been built a great specialized crop and hay industry, the latter collaborating with Federal range in supporting one of the principal industries of the western United States--the livestock industry.

We have a unique type of livestock operation and a range and farming situation that is different. In explanation first let me

say that should we recognize a preferred dependence on all cultivated feed-producing properties, the approximate number of cattle that might be allowed each landowner in our Idaho districts would be in the neighborhood of 40 to 50 cattle, and, in the case of sheep, somewhere in the neighborhood of 300 to 400. Such recognition, of course, would upset the livestock industry. However, not to consider the need for a local hay market which must depend on the livestock industry would likewise affect the farmer and upset the whole agricultural economy of the State.

Now let us take a glance into the history of Idaho's past and present livestock operations and note the change in type of operation which has taken place. Prior to the time irrigation projects were developed to any considerable extent, sheep were wintered on low ranges which were covered primarily with perennial grasses and other forage. It was because of the abundance of perennials that such use was possible. This was a relatively inexpensive way to provide feed even though severe losses were often taken during bad winter storms. The perennial forage could not survive this unseasonal use and overstocking and so was gradually getting thinner and less vigorous and finally practically depleted altogether. As the better perennial grasses disappeared, inferior annual grasses made their appearance. The new or invading grass which "took the range" is what is commonly known as cheat grass. Cheat is an early succulent annual, grows as thick as hair on a dog's back in places, and produces a great volume of lush feed for a 4-to 6-week period in the early spring. When cheat cures and dries through the summer and fall, it becomes a great fire hazard and will burn like tinder. Unlike perennials, cheat alone will not maintain stock after it cures. This, then, makes it necessary to find other feed to care for stock during the winter months.

During the same period while this change in range forage was taking place--and it covered a relatively few number of years and is within the memory of many of our old-timers--let's see what development was going on in harnessing the Snake River waters. Dams and irrigation canals were being constructed, more and more lands were being irrigated and farmed, and increasing thousands of tons of hay were being harvested. Hay

needs a ready annual market. At first a ready market was had in shipping hay to other States. This continued until the alfalfa weevil, a parasite, hit the hay and Idaho alfalfa was quarantined. Quarantine stopped all shipments outside of the State, and a local market had to be developed to absorb the hay which otherwise would have gone unsold. The local market gradually developed as the annuals and cheat grass increasingly continued to replace perennial range plants.

There was also developing a new type of sheep operation. Instead of lambing on the range in April and May, more and more stockmen were feeding in the winter and were commencing to lamb in January and February. The sheep were kept in covered sheds to protect them against late winter and early spring storms. This new type of operation was producing an earlier lamb for the early market. These lambs weigh heavier and bring a premium price. To do well, the mother and lamb must get out of the feed lot and on green feed as early as possible. Here is where the new annual feed, the cheat grass, in replacing the higher type perennial fits so well into the present picture. Cheat, as I have said before, is an early feed, succulent when green, and an excellent milk producer and lamb feed. It is just the right thing to start the young lamb for a strong, quick, healthy gain right from the beginning. The higher type perennial grass does not fit into the economy of this operation nearly so well as the so-called inferior annual, but nevertheless a substantial and profitable livestock operation has been built and is going forward. You are all familiar with growing flowers under glass in hothouses. In Idaho we grow "hothouse" lambs, and that is what the shed lamb is often called.

There are many good arguments that we should so regulate our ranges that the higher type perennials should have a chance fully to reestablish themselves. Some technical range ecologist might say our aim should be to reestablish the vegetative climax. If we do this, will it stabilize or unstabilize a highly developed and profitable livestock operation in Idaho? Will it destroy the only market for an enormous hay tonnage produced by Idaho farmers? These are good questions to think about, and I leave them with you.

One way to illustrate the situation would be to say: Here is a balancing scale. One end of the balancing beam is high and the other end is low. Let us suppose the right or high end to be the type and condition of range feed a number of years ago and at a time prior to the development of any considerable number of irrigation projects. Let

us suppose the left or low end of the balancing beam to be the low production of hay which we had at the same time the type of range feed was primarily perennial. Then this is what has taken place. As the right end goes down, lowering the type and condition of range forage, the left side goes up, representing the increasing amount of hay being produced, until both arms are horizontal and on an even keel. The scale, then, is the present livestock operation balanced and fitted to the present economy as it exists today. The livestock operation fits, too, the present type of forage on the range and furnishes a market for today's large hay crop. One of our problems, then, is to determine whether it is desirable to strive for a perennial grass type on our range or maintain an intermediate plant stage such as exists today and fits the present practices of the majority of stockmen in southern Idaho.

We have an industry, involving 250,000 cattle and 2,000,000 sheep to serve in a stabilization endeavor. We must not go too fast for it will take many years to reach an answer but in following the principles of the Taylor Grazing Act much has been accomplished already. More and more we are bringing closer the relationship of ranch and range in Idaho.

GRASS AND GROWTH

by R. E. Morgan, Regional Grazier
Region No. 6, Montana

We in Montana look back with a great deal of pride upon the vast amount of constructive work which has been accomplished in this region since the enactment of the Taylor Grazing Act five years ago. We are greatly appreciative of the wholehearted cooperation given us by the 33 State Grazing Associations with which we are at present cooperating.

The new Montana Grass Conservation Commission, which was created by the last legislature, is unique in that it places Montana among the first States to recognize that our grass ranges are one of our most important resources and that intelligent handling of that resource is necessary to its conservation. We would, indeed, be remiss if we did not express our appreciation to the stockmen, ranchers, and farmers of this region who have given unselfishly of their time, energies, and experience to assist in this work.

We too are greatly indebted to men from the University of Montana and the State College at Bozeman who have been very helpful in the exchanging of ideas and in assisting us in attacking the economic problems with which we are confronted.

The Forest Service, the Soil Conservation Service, and the Bureau of Biological Survey, of the Department of Agriculture, are also to be commended for their fine cooperative spirit and assistance.

Montana is a vast empire and our grazing districts are interspersed throughout its length and breadth; approximately 550 miles east and west, and 250 miles north and south. Scattered over this area we have five established grazing districts, only one of which has been completely covered by a range survey and it is being rapidly put under proper range management. We hope to cover the other districts just as rapidly as possible.

In all five districts we are carrying on, through the facilities of the Civilian Conservation Corps, a long-range water con-

servation program, which includes the development of springs and the construction of stock-watering reservoirs at locations where they will best contribute to proper utilization of the Federal range. This program, which is being carried on in cooperation with the stockmen of the areas affected, has an inestimable potential value to the State and to the grazing districts.

We have five CCC camps located in this region which are actively engaged in range conservation work. The boys at these camps take an active part not only in the construction but also in the engineering, mapping, and designing of the various projects. The educational program, which is conducted at all camps includes a great variety of subjects. In addition to the class work, lecturers who are experts in their respective fields are invited to address the boys. "On the job training" is especially stressed in connection with the educational program.

In connection with our range utilization studies and range management plans, we are making parallel studies and plans for the proper care of our abundant wildlife. It is our belief that areas more valuable for game protection because of their composition and inaccessibility, should be used for this purpose and that cooperative effort should be made with this object in view. It has been generally observed that the stockmen are among our greatest game enthusiasts and are anxious to work with us to bring about a satisfactory solution of this problem.

As a new Taylor Grazing year begins, we pause on this anniversary date, to look back over the trail we have laid out that we might better orient ourselves to the objective we have planned for the future. We do this with the full knowledge that many of the complex problems seem difficult of solution, but with full faith in our organization and a firm belief in the ever-increasing value of our efforts, we look forward to many years of increasing success.

PEACE, PROGRESS, AND PLENTY

by C. F. Dierking, Regional Grazier,
Region No. 7, New Mexico

When Region 7 was first organized, it included the States of New Mexico and Arizona with the exception of Arizona Grazing District No. 1. The Region was established in the spring of 1935, at which time it received 14 CCC camps - 8 of which were allocated to New Mexico and 6 to Arizona. The present Region 7 comprises the State of New Mexico only.

The topography of this state varies from narrow river valleys where irrigation is carried on to adjoining low hills, plains areas, mesas, and mountains. The last four types mentioned are principally grazing areas with some dry farming. The vegetation varies from semi-desert to the ponderosa pine type.

The total public land area of New Mexico is approximately 27,697,000 acres, of which 11,845,210 acres are within established grazing districts. The livestock industry, which is one of the leading industries of the state, represents the following classes of livestock: cattle, sheep, horses, and goats in the order named. The forage on the federal range is composed principally of browse and short grass with some bunch grass. The short grass species is of the type that cures well on the ground and affords yearlong grazing. This factor, combined with the favorable climate which varies from hot summers and mild winters to mild summers and cold winters, makes for ideal yearlong grazing. Practically all of the livestock licensed in Region 7 graze yearlong or for a 12 months season. -

New Mexico Grazing Districts 3, 4, 5, and 6 were established in June 1935. Advisory Boards were elected and meetings for issuance of first licenses held immediately following the elections. As a result of these meetings 1702 licenses were issued for 372,994 cattle, 19,714 horses, 532,714 sheep, and 119,434 goats.

The CCC program consisting of range improvements was inaugurated in the summer of 1935. Construction was begun on stock water tanks, wells, fences, roads, dams, spring development, flood irrigation, truck trails, stock trails, poison weed eradication, rodent control, and erosion control. The forage in this region was in very poor condition as a result of recent drought. Also many of the ranges were understocked as a result of the livestock slaughter plan, and disposition of livestock due to lack of forage.

On August 21, 1935, Circular No. 3 providing for a representative of the game interests on each grazing district advisory board, was approved by the Secretary of the Interior.

In January 1936, Arizona was set up as a separate region except for the CCC camps, which were still administered from the Albuquerque office. In January 1936, licenses were issued up to and including April 30, 1937, in Districts 3, 4, 5, and 6. In April 1936, Districts 2-A and 2-B were established and Advisory Boards elected. Following the Advisory Board elections meetings were held and licenses issued in all districts except 2-A, up to and including May 1, 1937. A total of 1,572 licenses were issued for 394,934 cattle, 21,815 horses, 557,654 sheep and 94,068 goats. In some cases reduction of livestock numbers was necessary to meet the carrying capacity of the ranges as recommended by the Advisory Board. These reductions were accomplished by eliminating tramp operators without base property. This season was the first time the yardstick was really applied and enforced. This accounts for the reduction in number of licenses.

Heavy rains in portions of the state broke the drought and caused heavy floods that endangered life and property. The CCC boys of the Division of Grazing participated in rehabilitation work in the Town of Hatch, New Mexico, following one of the worst floods in the town's history. Throughout the year 1936, the CCC program progressed satisfactorily - constructing range improvements as listed above.

In November 1936, the first annual election of one-third of the Advisory Board was held for Districts 3, 4, 5, and 6.

The development of the Magdalena Stock Driveway was started during this year. When completed this driveway will provide a means for trailing livestock from the south central and western sections of New Mexico Grazing District No. 2-B to a central shipping point at Magdalena. The livestock can be moved under fence with ample feed and water insuring delivery in good shape.

In 1937, individual allotments were set up in all six grazing districts, and forage allowance made for a reasonable number of game animals as provided for in Circular No.

3. At the Advisory Board meetings recommendation was made for 2,087 licenses for 285,053 cattle, 15,862 horses, 448,642 sheep, and 65,074 goats. Favorable moisture conditions throughout most of the state improved range and livestock conditions. In November 1937, the annual election of one-third of the Advisory Board members was held for all grazing districts.

The CCC program continued in full swing, completing many valuable range improvements which have aided materially in the utilization of the federal range and the livestock grazing thereon. The Magdalena CCC camp cooperated with the Biological Survey in furnishing fencing material for the Bosque del Apache migratory water fowl reserve. When completed this will afford a resting place for the migratory water fowl in their trek from the north to south in the fall and their return to the north in the spring.

In 1938 licenses were issued from May 1, 1938 to April 30, 1939. 1,982 licenses were issued for 273,905 cattle, 13,366 horses, 508,452 sheep, and 62,301 goats. Two districts will be ready for permits during this year, and the initial range surveys completed in the remaining four districts. Prior to the end of the grazing season the final check work should be well under way in the third grazing district. Exceptionally favorable moisture conditions existed in all grazing districts except in localized areas. As a result, an excellent forage crop was produced and wonderful progress made in re-establishing the vegetative cover throughout the grazing districts in this region.

Cooperation with the Biological Survey in New Mexico was effected in an effort to control and minimize the bubonic plague outbreak in N. M. Dist. No. 2-B. A five year rodent control program in cooperation with the Biological Survey was worked out and approved. Operations were begun in all grazing districts using the 25% fund for materials, equipment and labor. To date, 532,510 acres have been treated for prairie dogs and kangaroo rats. This work has met with universal approval of the licensees.

To date no improvement work has been done from the 50% of the grazing fees returned to the counties. It is anticipated, however, that this matter will be straightened out and a satisfactory program developed in the near future.

The CCC program was reorganized and set up under the direct supervision of the region office. A long-time program is being worked up as rapidly as possible, having been completed in one district. Two new CCC camps were established in New Mexico - 101-N at Bloomfield, New Mexico in District 2-A, and 123-N at Quemado in District 2-B. These camps will assist the existing 8 camps in furthering the range improvement program in Region 7. To date the following work has been completed: Eleven stock corrals constructed; 21,659 feet of pipeline laid; 225 stock tanks and retention dams constructed; 11 steel rim storage tanks built; 889 miles of standard fence built; 453 miles of truck trails constructed; 123 miles of stock trails constructed; 4,328,807 acres of rodent infestation treated; 131 cattle guards put in new fence construction and in existing fences crossing important roads; 58,748 acres of poisonous weeds eradicated; 21 springs developed, and 19 wells drilled and equipped.

The CCC program has been exceptionally successful in that it is doing a type of work that will benefit the federal range and livestock for years to come. The movement of livestock is being controlled by the construction of fences - thereby preventing congregation and over-grazing of certain areas. Water and trail developments have aided materially in better distribution of livestock and proper utilization of the federal range. The other range improvements have also contributed to the conservation of the federal range and the stabilization of the livestock industry.

This region is confronted with the following problems: range adjudication, adjustments of range lines, prevention of trespass of livestock, livestock outside of allotments, and livestock in excess of permitted numbers. Also the movement of livestock across the Magdalena Stock Driveway and from the Indian Reservations to the various shipping points presents quite a problem. There is in addition some seasonal movement of livestock from Colorado to New Mexico for winter grazing.

The rehabilitation of natural resources and the stabilization of an important industry is the aim of the Taylor Grazing Act in Region 7.

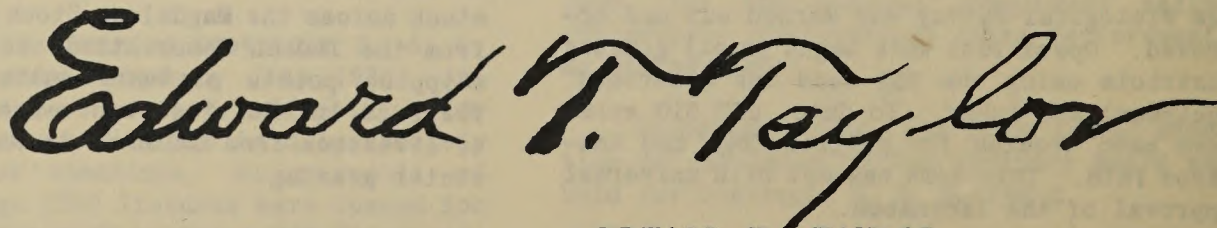
GREETINGS

It gives me great pleasure to send greetings to the stockmen of the West and to all others who read The Grazing Bulletin. Five years ago today, President Roosevelt signed the Taylor Grazing Act, thus bringing about a national consciousness of the need for Federal control of our public lands. This consciousness has been expressed by the people of the Western States through cooperation with the Federal Government and the courageous administration of Secretary Harold L. Ickes in this important conservation work.

I have watched closely the progress of the Division of Grazing in the Department of the Interior and the democratic policies it has established. It is a very great gratification to me to realize that this law has permanently established the policy of "Home Rule on the Range", in stabilizing the livestock industry throughout the West.

That the proper course is being followed is borne out by the fact that the stockmen are exhibiting a patience and assurance that is characteristic of their hardy pioneering traditions. Their reward is a greater security in the industry they have built through the years.

Fruitful as these past five years have been, I am confident that the greater accomplishments are to come. It is with pardonable pride that I had the honor of laboring for many years for the enactment of the law which bears my name. I feel that this legislation, as pronounced by the Secretary in a speech at Denver, constitutes a Magna Charta for national conservation.

A large, elegant handwritten signature in dark ink, reading "Edward T. Taylor". The signature is written in a cursive style with long, sweeping strokes, particularly in the first and last names.

EDWARD T. TAYLOR.

COMMUNITY COOPERATION

by Chas. F. Moore, Regional Grazier
Region No. 8, Colorado

Colorado is one of the Nation's principal livestock States. On its mesas, deserts, and valleys grows the forage that makes this possible. From its mountains flow the streams that contribute largely to the farms not only of this State but also of other States. The water impounded by Boulder Dam is contributed largely from its watersheds.

Forage and water are the lifeblood for continued existence of the western slope of this State, where its five grazing districts are located. Step by step, we are shaping the use and management of this 7,000,000-acre public domain territory toward the ultimate goal of better things.

All grazing districts in this State are being subdivided into units which contain as far as possible a community of interest and a similarity of problems. In developing and carrying out the conservation program in Colorado we have enjoyed the cooperation of all the interests involved; the stockmen of Colorado were among the first to endorse the Taylor Grazing Act.

The Grand Valley Unit within Colorado Grazing District No. 1 embodies a variety of conditions which when coordinated combine to serve the economic and social needs of a large community in this section.

The Grand Valley Unit covers about 600,000 acres between the Colorado River and the top of the Book Cliffs on the western slope of the Continental Divide. Two-thirds of the land is Federally owned. The rest is the land of farms, homes, and ranches belonging to the citizens of the locality. Between the river and the crest of Book Cliffs, the elevation rises 3,000 to 4,000 feet some places within a horizontal distance of a few miles. Thus, we have a variation in plant growth ranging from desert to alpine. High areas are snowbound in winter, and deserts are hot and unwatered in summer. Crops are produced at the lower elevations by irrigation. The combination of farming and stock raising comprises the basic wealth of the community.

The first cattle came into this locality in the '70's, and at that time it was a choice piece of range, affording excellent summer as well as winter range with no complementary feeds of any nature necessary. In

the '80's the Mesa County Irrigation District was formed and approximately 50,000 acres were put under irrigation in the area adjoining the Colorado River. This area was almost entirely converted to the raising of fruit. In 1912 the Grand Valley irrigation project was completed by the Bureau of Reclamation, taking from the available winter range another large block of land. This unit was considered a prize piece of range land, as the summer and winter ranges were adjoining, which afforded a natural drift for the stock, and in the '90's it was customary to ship a certain per cent of beef cattle each spring during the spring roundup.

Some of the old prominent cattle companies that operated in this area in the '70's, '80's, and '90's were the S Cross Cattle Company, owned and controlled by Charles Sieber; the Bar X Cattle Company, owned by the Thatcher Brothers; the Flying W Brand, owned by Jim Turner, with several other brands. It was along in 1914 that the first sheep appeared in this locality, and in that year a band of 1,200 sheep, owned by Fawn Taylor and Alex Reed, was clubbed, shot, and otherwise killed, in the northwestern part of this unit. The herder, one Rocky Stewart, who now lives in Moab, Utah, was found, with his dog, tied to a tree, and, using Rocky's own expression, they didn't even leave him a chew of tobacco to quiet his nerves.

In the years following, the sheep gradually obtained a foothold, and the desert range heretofore referred to was in the direct route of sheep summering on the upper drainage of the Colorado and Gunnison Rivers and wintering on the desert ranges in Utah. At the time of the enactment of the Taylor Grazing Act, from 150,000 to 200,000 sheep were trailed annually over this small territory, taking approximately two months to pass through and in that time completely exhausting the available range.

Upon assuming the administration of the Taylor Grazing Act in this unit, we encountered a very bitter feeling between the local stockmen and the transient sheep operators who only passed through this area and remained long enough to exhaust what forage was available. Since the enactment of the Taylor Grazing Act, we have posted 57 miles of stock trails, which confine the herds

passing through this district to a limited area, and, in doing this, the sheep which still trail and which do not exceed 3,000 head may pass through without damage or detriment to the remaining portion of the range.

We have constructed eight reservoirs in this unit, which have assisted materially in a better distribution of the grazing of livestock and relieved the denuded areas adjoining the old original watering places. Precious water from a drainage area of 1,500 acres is conserved and held for use by a system of check dams.

The rodent control program in this unit has been very successful. We have treated 100,000 acres, and it is estimated that there was a 90 per cent kill.

A separating corral built by our CCC camp facilitates the control, counting, and handling of livestock that essentially must trail between grazing lands in Utah and Colorado. Six miles of drift fence control the movements of cattle between summer and winter range.

Twelve plots, averaging about one-fourth of an acre each, have been fenced for re-seeding to range plants for experimental purposes.

The interrelationship of the privately owned land belonging to applicants and the Federal range has been established, and the program is on a sound basis.

Grazing licenses for 4,780 head of cattle, 32,229 head of sheep, and 273 head of horses have been issued to 44 livestock operators in the unit. The size of the licenses range, on cattle, from 20 head to 600 head; on sheep, from 300 to 4,135; and on horses, from 5 head to 95 head.

Temporary individual and community allotments have been established and used for the past two grazing seasons. Adjustments have been made each season to meet any deficiencies we have found in the preceding season. These allotments are not at present perfect, but we are of the opinion that, in not to exceed two more grazing seasons, we shall be able to put this unit on a permanent basis.

The Federal range in this area, which, in my opinion, was one of the most abused and overgrazed areas in the State of Colorado, is showing a rapid recovery, and the local stockmen, now enjoying grazing privileges within this area, have given the Division of Grazing 100 per cent cooperation in attempting to work out the proper range management.

HISTORY AND EFFECTS OF THE TAYLOR GRAZING ACT IN ARIZONA

by John Ray Painter, Regional Grazier,
Region No. 9, Arizona

The first Federal range to be put under administration in the State of Arizona was the "Arizona Strip", that part of the State which lies north of the Colorado River adjacent to the Utah line. Prior to 1929 this part of Arizona was accessible only by a long trip over poor roads through eastern California, western Nevada, and southern Utah, or by way of Lee's Ferry, above the site of the present Navajo Bridge.

In the Houserock Valley was located the famous Church herd, a herd of four or five thousand cattle which belonged to the Mormon Church. This Church herd was succeeded by the Grand Canyon Cattle Company which at one time had 17,000 cattle on the range which today is estimated to have a carrying capacity of about 2,000 cattle yearlong.

West of the Hurricane Rim was the famous Circle outfit owned by Preston Nutter which ran thousands of cattle west to the Nevada line. In addition to these large operators there were innumerable small cow outfits and thousands of wild horses which followed the feed and water in the "Arizona Strip." According to the old timers the "Arizona Strip" was overstocked with horses and cattle during these years, and during the winter seasons at least 200,000 sheep moved onto the "Strip" from the Utah ranges, roaming over the country in search of feed and water.

The Taylor Grazing Act went into effect in Arizona with the public domain lands at the lowest point of productivity since the history of cattle in Arizona, caused by several years of drought and climaxed by the

great drought of 1934 with the ranges overstocked from lack of market. There are ranchmen operating in Arizona today who, without the protection that has been given them in the stabilization of their operation by the Taylor Grazing Act, would be on relief. With this protection they have ranches today with established boundary lines, know how many cattle can be properly grazed within these boundaries, and have a basis for planning their future.

Credit should be given to the CCC organization. With its help we have built truck trails into inaccessible areas, constructed fences for the control of ranges, drilled wells, constructed reservoirs, and made innumerable spring developments, accomplished rodent eradication on thousands of acres, made range surveys in three grazing districts, posted miles of stock driveways, and constructed shipping corrals for eliminating the driving of livestock long distances across the ranges to shipping points.

The sentiment of the stockmen using the Federal range in Arizona today is one of gratitude for the enactment of the Taylor Act and they have confidence in a fair administration of the Federal lands by the Division of Grazing.

In 1935 Arizona Grazing District No. 1 was established under the Taylor Grazing Act. Between 1935 and 1938 the nomadic bands of sheep whose operators had no base property or water for grazing rights were removed from these ranges and wild horse roundups were held. Herds of cattle whose owners had no waters or lands were removed.

In 1938 Arizona Grazing District No. 1 was broken down into allotments and definite allotment lines were established. This was done through a series of meetings held throughout the "Arizona Strip" with the range users concerned. The program met with a great deal of opposition at first as these people had always been in the habit of drifting their herds to the best feed and water with no thought of the damage they were doing to the range through overgrazing. This opposition has been overcome, however, and the users of the range in the "Arizona Strip" are in accord with the allotment system which gives them a section of range they may protect and develop. They are demanding segregation fences between the sheep and cattle ranges and are developing waters on their allotments for better distribution. Although opposition had been expected in reducing the livestock to the actual carrying capacity of the range, on the contrary these reductions have been voluntarily made by 90 percent of the users.

Through control of grazing on allotments by drift fences and the development of more waters, these ranges will increase in carrying capacities--in fact, they have shown a marked increase during the past two years.

Arizona Grazing District No. 2 was established by order of March 6, 1936. Before this grazing district was established the stockmen in the area under consideration organized themselves into an association and sent delegates to all the meetings held in the West on the Taylor Grazing Act, giving the matter a great deal of thought and study before the establishment of the district. This district is located on the watershed of the Colorado River in the northwestern part of the State of Arizona. Allotment lines are well established and are being fenced as rapidly as possible. Before the establishment of the district very little water development had been done on these ranges, as such developments only brought more nomadic stock which overgrazed the areas around the waterings. Now, as allotments are being enclosed, the ranchers are going forward with water developments for better use of the ranges. Reductions in livestock numbers, where necessary, have been voluntarily made by 95 percent of the users concerned. The wild horse and wild burro problem is being taken care of through the demand for horse and burro meat from the packers of dog and fox foods in California which markets are readily accessible by paved highways.

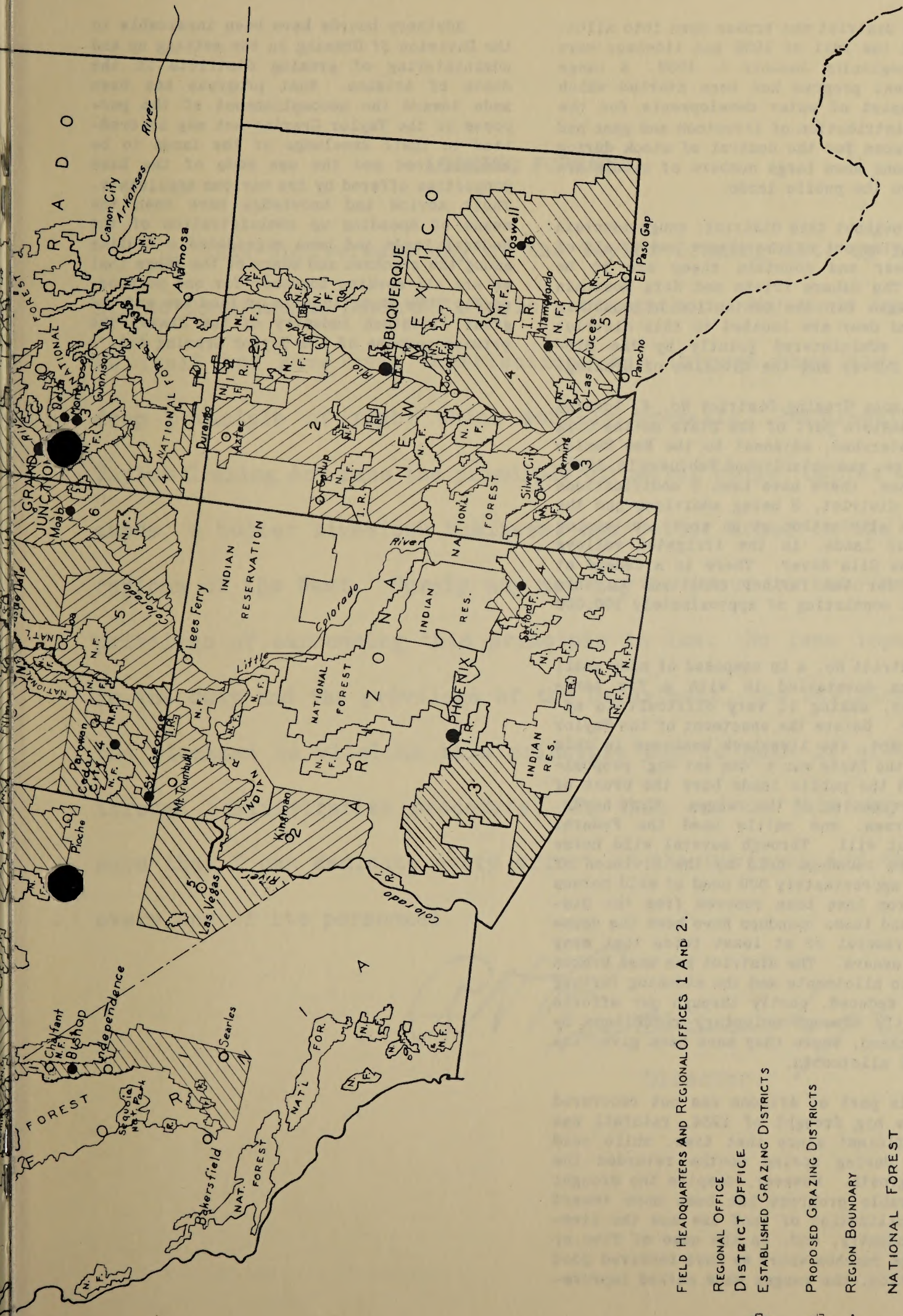
The effect on ranch property values of the administration of the Federal range under the Taylor Grazing Act is particularly noticeable in this section of the country. Ranches, which a few years ago were unsalable, today have a substantial value. Many of them are being sold and the purchasers are not dudes, but experienced stockmen. At this time there is a movement to add approximately 200,000 acres to this district.

District No. 3 was established July 14, 1938, and modified January 23, 1939, and at this time we have a demand for two additions involving approximately 350,000 acres. This district is located in the southwestern part of the State and is comprised principally of desert ranges which, in favorable years, produce a very heavy crop of annual vegetation and at such times will carry great numbers of livestock. While there is considerable yearlong stocking in this district, for the most part it will be heavy seasonable stocking during favorable winter and spring seasons. The district is overrun with wild horses and burros, the elimination of which is proving quite a problem.

DEPARTMENT OF THE INTERIOR
DIVISION OF GRAZING

GRAZING DISTRICTS UNDER TAYLOR GRAZING ACT





FIELD HEADQUARTERS AND REGIONAL OFFICES 1 AND 2.

- REGIONAL OFFICE
- DISTRICT OFFICE
- ▨ ESTABLISHED GRAZING DISTRICTS
- ▤ PROPOSED GRAZING DISTRICTS
- REGION BOUNDARY
- N.F. NATIONAL FOREST
- I. R. INDIAN RESERVATION
- N.P. NATIONAL PARKS
- N.M. NATIONAL MONUMENTS

The district was broken down into allotments in the fall of 1938 and licenses were issued beginning January 1, 1939. A range improvement program has been started which will consist of water developments for the better distribution of livestock and game and drift fences for the control of stock during the seasons when large numbers of cattle are turned on the public lands.

Throughout this district, rough mountain ranges arise out of the desert and in all of these deer and mountain sheep are to be found. The Cabeza Prieta and Kofa Mountain Game Ranges for the protection of mountain sheep and deer are located in this district and are administered jointly by the Biological Survey and the Division of Grazing.

Arizona Grazing District No. 4, located in the eastern part of the State on the Gila River watershed, adjacent to the New Mexico State line, was established February 14, 1936. Since then, there have been 3 modifications of this district, 2 being additions and the other an elimination of an area, containing no public lands, in the irrigated valleys along the Gila River. There is a demand at present for two further additions to this district consisting of approximately 100,000 acres.

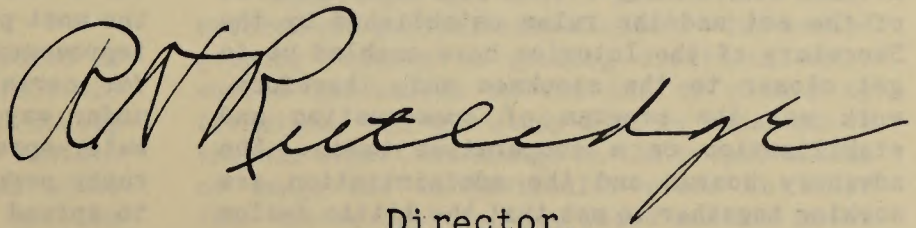
District No. 4 is composed of many small operators dovetailed in with a few large operators, making it very difficult to administer. Before the enactment of the Taylor Grazing Act, the livestock business in this part of the State was a "dog eat dog" proposition and the public lands bore the brunt of the overcrowding of the ranges. Goat herds, wild horses, and cattle used the Federal ranges at will. Through several wild horse and burro roundups held by the Division of Grazing approximately 500 head of wild horses and burros have been removed from the District, and these roundups have been the cause of the removal of at least twice that many more by owners. The district has been broken down into allotments and the stocking further greatly reduced, partly through our efforts and partly through voluntary reductions by the stockmen, where they have been given individual allotments.

This part of Arizona has not recovered from the big drought of 1934, rainfall has been deficient since that time, while cold weather during spring months retarded the forage growth. However, despite the drought considerable progress has been made toward the stabilization of land use and the livestock industry, and, in the case of five or six large ranches where we have received good cooperation, the ranges show marked improvement.

Advisory boards have been invaluable to the Division of Grazing in the setting up and administering of grazing districts in the State of Arizona. What progress has been made toward the accomplishment of the purposes of the Taylor Grazing Act may be credited to their knowledge of the lands to be administered and the use made of the base properties offered by the various applicants. Their advice and knowledge have been the means of speeding up administration of the Federal lands and have engendered a feeling among the stockmen and users of the range that we are all working together for one purpose, namely, the stabilization of land use and the great livestock industry of the State, the primary purpose of the Taylor Grazing Act.

LOOKING FORWARD

On this anniversary day of the Taylor Grazing Act, my hat is off to Congressman Edward T. Taylor, its author. Man-made laws may be frail and have many imperfections but through them may run a deep principle of right which usually prevails. Underneath the Taylor Grazing Act runs the principle of better range, better watersheds, a better livestock business, and better homes in the range regions of the West. Surely any man may be proud to have had the privilege of expressing this principle in law. No less important is the duty and the privilege of the Department, the Division, and the stockmen to vitalize this principle and to make it effective through administrative procedure. To this end on this day I am sure that I can dedicate every effort of the Division and that of every one of its personnel.

A handwritten signature in dark ink, reading "R. W. Rutledge". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Director.

THE TAYLOR GRAZING ACT IN WYOMING

by H. J. Burback, Regional Grazier
Region No. 10, Wyoming

Wyoming was among the last of the States in the West to become organized under the Taylor Grazing Act. In 1935, Wyoming Grazing District No. 1, located in the northern part of the State, was established, and, before the people of the southern part became convinced of a desire for grazing districts, the 80 million-acre limitation had been exhausted. We had to await the amendment of June 26, 1936, before additional areas could be included in the program. By the fall of that year, four additional districts were established in Wyoming, and the total area thus involved in the State totaled approximately 11 million acres.

Like its neighboring States, Wyoming has conditions and problems that are peculiar to the State itself. The livestock industry is the foundation of its entire agricultural picture. On that basis, the program has progressed with general satisfaction. On the public domain area within grazing districts, 152,728 cattle, 14,104 horses, 1,444,840 sheep, and 254 goats were licensed to graze during some part of the year. After three years of sifting facts, gathering basic information, and making hundreds of adjustments, the license system has proved effective, and the soundness of the Taylor Grazing Act has been demonstrated.

Instead of the livestock men frantically transporting their flocks and herds to the range, they now await the established opening dates and cooperate with the administration in getting the most out of the natural wealth of the Federal range. The autonomous features of the act and the rules established by the Secretary of the Interior have enabled us to get closer to the stockmen and, therefore, work out the program of conservation and stabilization on a cooperative basis. The advisory boards and the administration are working together to see that the little fellow gets a square deal.

Although it was, and still is, necessary to make adjustments in range practices, the process has been orderly, resulting in a minimum of disturbance to the livestock industry. Thus, the relationship of range and ranch use is going forward with general unity of purpose in performing this big job of conservation.

Entering upon another phase of the conservation program, we have found time, during the past year, to make needed range improvements of various nature through the facilities of nine CCC camps, the 25 per cent fund, and the 50 per cent fund. Improvements consist mainly of water developments, fencing, bridge construction, truck and stock trail construction, boundary posting, rodent control, and other works, all of which combine to make the range better and facilitate handling of livestock and range control.

We are confronted with an urgent need for flood control, reseeding, and erosion control of large areas that have been subjected to improper use during the past. One such area is the 65,000-acre tract located about 20 miles north of Rock Springs in Tps. 22, 23, and 24 N., Rs. 103, 104, and 105 W., sixth principal meridian. This area is typical of large areas of Federal range in Wyoming that have suffered by the free and unregulated use that prevailed prior to the Taylor Grazing Act. Due to its location between the railroad grant lands on the south and the national forests on the north, the area is a natural reservoir for concentrated and highly competitive grazing use.

In cooperation with the Soil Conservation Service, the Division of Grazing in Wyoming is effecting the development of range-management plans through the construction of flood-control and range-utilization devices and through reseeding. A preliminary examination of the area has been made to determine the extent of existing forage resources and the most practical methods of effecting these improvements while at the same time allowing for certain grazing use. The plan is now under way. It includes the construction of water-spreading devices where soil and topography permit such devices. These will serve to spread water on the relatively flat areas as a means of increasing the natural vegetative growth and vigor. An element of control of water is effected through the holding of run-off behind the water-spreading devices. Erosion-control dams are being constructed to provide stock water which will assist in a more even distribution of livestock use as well as to prevent run-off from concentrating in the larger drainages. The water development program also includes the cleaning out

of natural springs. Water will be diverted from the principal drainages through the construction of drainage laterals. Small shrubs and grasses are to be planted to protect the improvements constructed as well as to add to the production of the natural forage.

This project has been initiated to demonstrate the practicability of soil conservation development in one of the worst eroded areas in Wyoming. The cost will be kept low enough to warrant expansion of this type of work. Not only will the 65,000 acres be affected directly but also about 190,000 acres of valuable grazing lands situated lower down and the town of Rock Springs, with its 10,000 people, will be benefited directly through the mitigation of flood hazards that are inherent in this area. Reseeding will

assist in curbing the soil movement that has been alarmingly active during recent years on sandy lands in the area. When the project is completed in September of this year, there will have been about 25 miles of water-spreading devices developed, some 25,000 cubic yards of dirt converted into soil-erosion dams, and nearly two miles of diversion dykes constructed. The area will be covered by an intensive range survey to develop range-management plans that will be applicable to Federal range in southern Wyoming equivalent in area to that of the State of Massachusetts.

Flood control and related conservation structures dovetailed with management and range-control plans characterize the program throughout the five grazing districts in Region No. 10.

PLANTS AND PALATABILITY

by H. M. Bryan, Associate Range Examiner

Since the vast areas of public domain now included in the grazing-control program had never before been under actual regulation, there has been no reliable information concerning the carrying capacity thereof or the number of acres required to support a given number of livestock during a given period.

Because the conservation program of grazing control and range rehabilitation can go forward only as fast as the needed data become available, the Division of Grazing has launched upon the largest mapping and range study venture that has ever been undertaken by any Federal agency.

With the combined land area embodied in the program amounting to more than 250,000,000 acres of public, private, State, and county land in 50 grazing districts in 10 Western States, base maps and status maps had to be prepared in order to approach this problem systematically and intelligently.

The work involves not only an inventory of forage resources on the public lands but also a detailed accumulation of facts concerning some 20,000 private properties. The Division of Grazing is carrying forward the program to guide systematic and reliable use of this forage resource. In brief, the studies of forage on the public domain measure the growth thereon in terms of a common base

such as hay. As a general rule it requires about 500 pounds of hay on the average to maintain one animal unit for one month.

How many acres of Federal range are required to perform the same function? That depends on the density, palatability, type, variety, moisture conditions, and many other factors that contribute to plant growth. Owing to the wide variety of conditions on the Federal range, careful studies of plants are required to show their usefulness to livestock and their ability to withstand grazing.

Many important desert plants have never before been sufficiently studied. The varied growing seasons in grazing districts exert varied influences on the use of plants by livestock, and the study must be expanded to include expert knowledge on the proper season of range use in particular areas in order that the forage crop may yield maximum value with a minimum of injury to the soil, water, and plants.

Technical findings on the palatability and proper use of various species of plants have been made in a number of grazing regions. The Division of Grazing has taken the lead in these studies but has received the cooperation of other agencies through interagency agreements. The total area covered so far amounts to approximately 63,000,000 acres;

therefore, approximately one-fourth of this job is now complete.

Thirteen of the 50 grazing districts have been examined, and revised plant lists of important species with their proper use factors have been agreed upon and tabulated by interagency committees dealing with range lands in Colorado, Idaho, Nevada, Utah, and Wyoming.

These tables have been worked out on a forage-type classification basis and palatability factors have been assessed separately for cattle and sheep as well as for the spring, summer, fall, and winter grazing seasons.

Definite location of the plants or areas that are observed within the scope of the examination is plotted on the maps and the utilization is recorded on check sheets. The examiner notes the time of examination in relation to grazing season, growth period of plants, and the general type of country, together with the kind of stock which use it. He then notes the degree of use of the primary forage types, relative vigor, and evidence of reproduction or mortality of plants through overgrazing, erosion, or poor management.

Secondary and undesirable species of plants are studied and their degree of usefulness for grazing or erosion control determined. Records are kept of the soil and other factors influencing use and growth.

A systematic study of the degree of present grazing use over large areas is being conducted and methods have been developed by which the range areas may be inspected for degree of use. Examination is made on a number of small areas that are scattered widely over a unit, district, or allotment. Areas selected for observation are those that are most indicative of the general use being made of the Federal range in the locality. The authorized use of the area that is studied is a known factor through the records that are furnished the examiner by the administrative officer who has issued a license to graze the particular area to an individual or a number of individuals for specified numbers of livestock during a specified period.

When completed the examination will furnish a condensed guide for management plans, and the report will include four numerical terms which show the degrees of use having been made of the area as follows: (1) indicates proper use, (2) indicates over-use, (3) indicates excessive use, and (4) indicates destructive use.

Similarly, alphabetical terms indicate underuse as follows: (a) slightly underused, (b) moderately underused, (c) excessively underused, and (d) practically no utilization. These terms are noted on the map of the unit or district examined. By these series of numerical and alphabetical notations, the zones of similar use of a large area can be shown.

The final picture of the complete forage-resource study will show who occupies the land, where the land is located, of what the resources consist, and how the land-use relationship has been developed on the basis of facilities at hand.

THE LAND CLASSIFICATION SECTION --

ITS ACTIVITIES AND FUNCTIONS

by Ward L. Hopper
Land Classifier

The Land Classification Section, Division of Grazing, is responsible for the action required with respect to the classification of land and a number of other phases of work in connection with the administration of the Taylor Grazing Act. A part of the work is a continuation of that formerly carried on by the Agricultural Division in the Conservation Branch of the Geological Survey, the functions of which were transferred to the Division of Grazing by a Departmental order of March 21, 1935. The principal functions of the Agricultural Division included the action necessary with respect to the classification of land applied for under the Enlarged Homestead Act of February 19, 1909, the Stock-Raising Homestead Act of December 29, 1916, the Nevada Ground-Water Reclamation Act of October 22, 1919--which are now classification work under section 7 of the Taylor Grazing Act--and the work in connection with the creation and revocation of public water reserves.

Public water reserves are created principally for the purpose of providing water supplies for stock grazing on public land. They are also created as a source of supply for home consumption, and, in the case of hot or mineral springs, for health and medicinal purposes. The first public water reserve, which withdrew public land in Utah, was created by an order signed by President Taft on March 29, 1912. Legislation for this purpose had been advocated by officials of the Interior Department and others for years prior to 1912. The major part of the public domain is located in the western States where, because of the arid climatic conditions, the land is chiefly valuable for grazing and stock-watering places are not plentiful. In some of the most arid regions, the distances between watering places for man or animal may range from 10 to 50 miles. Prior to the passage of the Taylor Grazing Act when there was no regulation of unreserved public land, the possession of watering places resulted in control over large areas of surrounding public grazing land. It became apparent after stock-raising enterprises were established in the West that public grazing land would be monopolized by the larger interests through control of the watering places unless steps were taken to reserve them for the benefit of the public.

On April 17, 1926, a blanket order was made by the President, known as Public Water Reserve No. 107, withdrawing all springs or water holes on vacant, unappropriated, unreserved public land. It is the responsibility of the Land Classification Section to determine whether springs or water holes located on the public land are of the type intended to be withdrawn, and if such is the case, to prepare orders for the Secretary's approval, listing the land on which the springs or water holes are located. Permanent flowing streams and adjoining land necessary for access by stock thereto, are included in Executive orders prepared by the Land Classification Section. Records are kept of water reserves and acreages of the land involved, and a report is made to the Secretary annually.

Section 1 of the Taylor Grazing Act makes provision for stock driveways. Withdrawal of land for driveways was originally provided for under section 10 of the Stock-Raising Homestead Act in order to provide public passageways as a means of access to public watering places and for the movement of stock to summer and winter ranges or shipping points.

Stock-driveway withdrawals have been under the jurisdiction of the General Land Office since the passage of the Stock-Raising Homestead Act. In order to facilitate the administration of driveways in grazing districts, jurisdiction over them was transferred to the Division of Grazing on April 20, 1936. It is necessary to relocate or abolish a considerable number of the driveways, and it is the duty of the Land Classification Section to review reports by the regional graziers on driveway locations, and when in accord with their reports, request the General Land Office to prepare the appropriate order. In Oregon and Utah, all the existing driveway withdrawals within grazing districts have been revoked, and steps are being taken to establish new driveways administratively. A record of all revocations and of new withdrawals for administrative purposes is kept in the Washington office.

Section 6 of the Taylor Grazing Act provides for the acquisition of land or the granting of permits or rights-of-way over public land in grazing districts for highways, irrigation ditches, transmission lines, or other purposes of similar nature. These projects are for the most part of important public value and do not interfere with the administration of grazing districts to any appreciable extent. The reports relative to such cases are prepared in the General Land Office and are submitted to the Secretary through the Division of Grazing when appropriate. The Land Classification Section reviews the reports, sometimes requesting reports of the regional graziers and at other times, when information in Washington is sufficient, acting on such information and forwarding the cases to the Secretary.

Section 7 provides for the acquisition of public land under applicable homestead laws, or in satisfaction of any outstanding lieu, exchange, or scrip rights or land grants. Before homestead applications are allowed, the land must be classified by the Secretary of the Interior as more valuable or suitable for the production of agricultural crops than for the production of native grasses and forage plants. In the case of applications not under the homestead laws, it must be classified as more valuable and suitable for the use intended in the appropriate law than for the use provided under the Taylor Grazing Act, or grazing use. The filing and disposal of applications are under the jurisdiction of the General Land Office, and it is the duty of the Land Classification Section to submit to the General Land Office appropriate classification reports concerning the agricultural value of the land included in the homestead applications regardless of whether the land is located within or without the boundaries of grazing districts. In the case of applications not under the homestead laws, reports are made only on those applications which include land located in grazing districts. Appropriate reports can be made in a considerable number of cases on the basis of information available in the Washington office. If additional information is necessary, examination of the land on the ground is made by field representatives of the Division of Grazing or Division of Investigations. In the case of favorable reports, the General Land Office prepares an order of classification of the land for approval of the Secretary. If the report is unfavorable, the applicant is notified to that effect by the General Land Office, and he may file an appeal for consideration of the Secretary. In that event, the Land Classification Section makes a complete report in the case to the Secretary, who renders a final decision.

Prior to the withdrawal of all vacant, unappropriated, and unreserved public land by Executive orders of November 26, 1934, and February 5, 1935, a large acreage of public land passed into private ownership through the three principal homestead laws: viz, the Original Homestead Act of May 20, 1862, and the Enlarged and Stock-Raising Homestead Acts. The Original Homestead law provided for the acquisition of 160 acres by one applicant, and the Enlarged and Stock-Raising Acts, 320 and 640 acres, respectively, in order to dispose of the public land in units sufficient to support a family. The Original Homestead law did not require classification, but it was necessary for the applicant to cultivate one-eighth of the land applied for before he was given title thereto. The Enlarged Homestead Act requires classification of the land by the Secretary of the Interior as non-mineral, nontimbered, and nonirrigable and of a type suitable for dry farming, and the Stock-Raising Homestead law requires classification of the land as nonirrigable and nontimbered and suitable chiefly for grazing and raising forage crops. The enactment of the Taylor Grazing Act substantially nullified designation under the Stock-Raising Homestead Act in that it provides for the inclusion of grazing and forage-crop land in grazing districts or for lease under section 15. In cases where the applicants had valid rights existing prior to November 26, 1934, and February 5, 1935, orders of designation are prepared by the Land Classification Section for the Secretary's approval, and a record is kept. A report of such designations is made annually to the Secretary.

In connection with its classification reports to the General Land Office, it has been necessary for the Land Classification Section to determine the type of land that is intended to be suitable for homestead entry within the meaning of section 7 of the act. In view of the fact that cultivation under the provisions of the previous homestead laws has resulted in the temporary and permanent destruction of vegetation on large areas of land which has little or no value for farming purposes, a continuance of the allowance of homestead entries on such land would not be in accord with a sound policy of the conservation of natural resources. Accordingly, the term "more valuable or suitable for the production of agricultural crops" has been construed to mean farm land equivalent in crop producing capacity to irrigated land or dry-farm land of the best quality or land located in humid regions where the rainfall is sufficient to produce crops under ordinary methods of farming. In brief, the land allowed to homestead applicants should have a permanent value for farming.

Applications not under the homestead laws are under the jurisdiction of the General Land Office, and the Land Classification Section advises that office whether the Division of Grazing has any objection to the allowance of the application from the standpoint of interference with the administration of the grazing district or other logical reasons.

Section 8 provides for the acquisition of land by the United States through gift and for the exchange of public land for that owned by States or private interests. In the case of State exchanges, both the base or offered land and the selected land must be in the same grazing district, but in the case of private exchanges, it is required only that both the base and the selected land be in the same State or within a distance of not more than 50 miles within the adjoining State nearest the base land. The exchange may be made on an equal area or equal value base, and it is provided that the mineral rights on the selected land be reserved to the United States.

The application for exchange is filed in the local Land Office, and a copy thereof, when it embraces land in grazing districts, is referred to the Division of Grazing, where it is reviewed in cooperation with the regional grazer. The application is considered from the standpoint of the effect that the consummation of the exchange will have upon the administration of the grazing district or upon the public interests. Among the factors considered are whether the exchange will consolidate holdings or cause public land to be so isolated as to be difficult to administer; whether it will raise a barrier to the proper control of the public range; and whether the selected land includes stock-watering places of public value. The Land Classification Section submits a report to the General Land Office, where further action is taken. If the report is unfavorable, the applicant may appeal to the Secretary. In the event he appeals, the Land Classification Section submits a complete report in the case to the Secretary, who renders an appropriate decision. The Land Classification Section is called upon by the General Land Office for a report on all exchange applications, regardless of the location of the land within or without a grazing district, concerning the public value of any stock-watering places thereon.

Section 14 provides for the sale of isolated or disconnected tracts of public land not exceeding 760 acres in area. It also permits the sale of public land not isolated

or disconnected in amounts under 160 acres to any person who owns or holds a valid entry on adjoining land provided that the greater part of the land applied for is rough and mountainous. The General Land Office has jurisdiction over public sale applications, and the regulations governing the sale of public land as revised on June 14, 1938, require that the land be classified as suitable for public sale under section 7 of the Taylor Grazing Act before the sale can be authorized. When the land applied for is located within a grazing district, the General Land Office requests the Division of Grazing to report whether it has any objection to the classification of land for public sale. The Land Classification Section, in cooperation with the regional graziers, reviews the applications involving land within grazing districts from the standpoint of the effect the sale of the land in question would have on the proper administration of the grazing district and in order to prevent unfair discrimination against any individual or undue control on the part of prospective purchasers. A report on the application is then made to the General Land Office. Whenever an unfavorable decision is appealed, a further report is made to the Secretary.

Section 15 provides for the leasing of public land for grazing purposes which is so situated as not to justify its inclusion in a grazing district. The administration of such land is under the jurisdiction of the General Land Office, and in the event an application is made for land within a grazing district, it must be eliminated therefrom before the application can be allowed by the General Land Office. Applications involving land in grazing districts are rejected by the Land Office, but the applicant is advised that he may file a petition with the Division of Grazing requesting the elimination of the land from the grazing district. On receipt of the petition in the Division of Grazing, the Land Classification Section reviews the petition, and if favorable action can be taken thereon, subsequent to a favorable report in the case by the regional grazer, an order of modification eliminating the land from the grazing district is prepared for the approval of the Secretary. In the event favorable action cannot be recommended on the petition, the applicant is advised, and if he desires, he may make an appeal to the Secretary. A complete report is made in such cases to the Secretary.

The Division of Grazing has established 50 grazing districts under the Taylor Grazing Act. In order to provide for as effective administration as possible, the boundaries

are changed from time to time. Orders establishing or modifying grazing districts are prepared by the Land Classification Section. Before final drafts are prepared, all available maps and survey plats are consulted. Since it is necessary to know at all times exactly which land is within the exterior boundaries of grazing districts, records have been devised and are maintained containing copies of the orders establishing districts and all types of withdrawals approved since the districts were established, and other pertinent information. From time to time, the Secretary approves orders prepared by other bureaus and approved by the Division of Grazing, withdrawing land within grazing districts for the benefit of the Indians, for reclamation purposes, air navigation sites, forests, and so forth. These orders are printed in the Federal Register, which is checked carefully daily.

All modifications of districts are shown on diagrams in the records of the Land Classification Section. These diagrams also show the location of all cooperative grazing associations and all wildlife refuges and ranges. In addition, the location of grazing districts is shown on large State maps, and a record of various maps received in the Division is maintained in the Land Classification Section.

The duties of the Land Classification Section also include the preparation of letters in response to inquiries concerning the character of land and the administration of the Taylor Grazing Act, and the preparation of instructions to field officers of the Division regarding the procedure for action on applications filed under the Taylor Grazing Act.

RANGE IMPROVEMENTS

by C. K. Caron,
Improvement Supervisor, CCC.

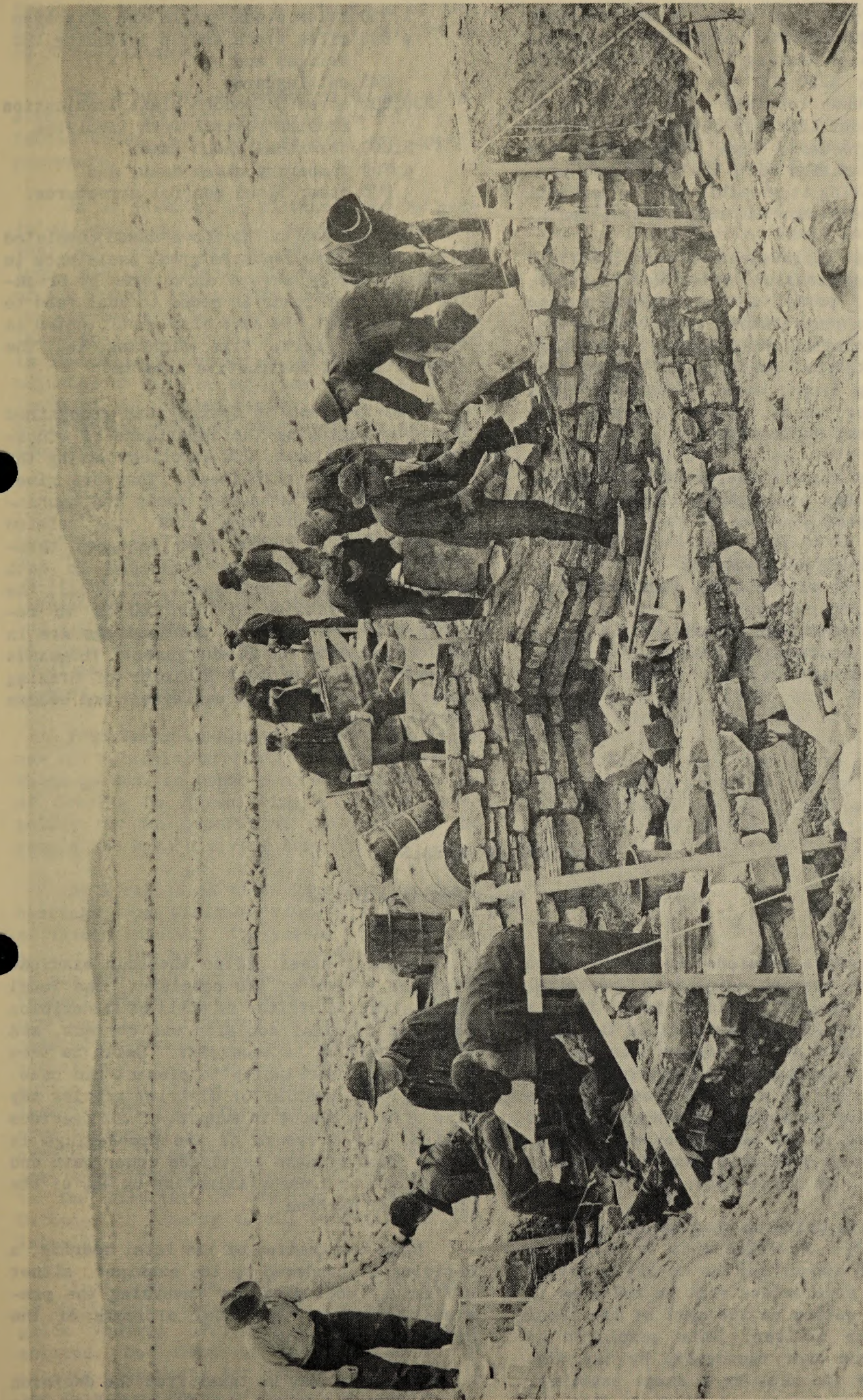
Prior to the passage of the Taylor Grazing Act in 1934, there were practically no improvements on the public domain constructed under Federal supervision. Since its inception the Division of Grazing has formulated plans for an improvement program which will provide a better utilization of the range and at the same time aid in the conservation and improvement of the natural resources. The local stockmen who are the users of the Federal range, have aided materially in developing our improvement program and contemplated work projects bear the recommendation of the district advisory board chairman or his authorized representative before being approved by the regional grazier.

In April 1935, seven CCC camps were assigned to the Division of Grazing for range-improvement work. This number was increased during the year to 45 camps located in Arizona, California, Colorado, Idaho, New Mexico, Nevada, Oregon, Utah, and Wyoming. Three CCC regional offices, located in Salt Lake City, Utah; Reno, Nevada; and Albuquerque, New Mexico, were set up to administer these camps. In order to coordinate the improvement program of the three regions a field headquarters office, located in Salt Lake City, was established during the latter part of 1936.

In 1938, when 45 additional camps were assigned to the Division for occupancy in July and August, it was determined that in order to secure closer cooperation between the administrative and the improvement branch of the Division it would be necessary to place all improvement activities under the direct supervision of the regional graziers. This plan of administration effected June 1, 1938, for supervising the 90 camps assigned to the Division, has now been in operation for one year, and the increased efficiency of the improvement program is very noticeable in all grazing regions.

The distribution of the camps in the nine grazing regions was made primarily on a combined acreage and livestock-unit basis and is as follows:

Region 2, Utah	15 camps
Region 3, Nevada and California	19 camps
Region 4, Oregon	9 camps
Region 5, Idaho	10 camps
Region 6, Montana	5 camps
Region 7, New Mexico	10 camps
Region 8, Colorado	8 camps
Region 9, Arizona	5 camps
Region 10, Wyoming	9 camps
Total	90 camps



Spillway being constructed at Marjum Pass Reservoir by the enrollees of Camp DG-29, Antelope Springs, Utah. This type of rock masonry is proving very beneficial in project training work. This photograph was among those viewed by the King and Queen on their trip to Fort Hunt, Virginia, on June 9, 1939, during an inspection trip which was made for the purpose of demonstrating to America's distinguished guests how our CCC camps are operated and what we are doing in the interest of conservation.

The 25 per cent funds, made available for range improvements under sections 10 and 11 of the Taylor Grazing Act, which amount to approximately \$250,000 per annum, together with other funds received under sections 10 and 11 and contributions received under co-operative agreements from individuals, are used in conjunction with the camp work program, thus making it possible for the regional grazier to coordinate all range improvements.

Our range improvements are divided into the following classes: water developments, consisting of wells, earth reservoirs, and spring developments; stock trails and driveways; rodent control; range fences; reseeding; range revegetation; experimental plots; corrals; holding traps; erosion control; truck trails; minor roads; range surveys; and poisonous plant eradication.

Among the major conservation accomplishments under this program are the following-listed completed projects:

- 358 spring developments
- 143 wells with storage facilities
- 780 earth reservoirs
- 7,300,000 acres rodent control
- 1,950 miles range fences
- 225 corrals

- 1,750 miles stock trails and driveways
- 4,900 miles truck trails including 185 bridges and
- 245 cattleguards
- 330,000 acres poisonous plant eradication
- Erosion control work involving
- 5,600 permanent check dams,
- 4,700 temporary check dams, and
- 275 other flood control structures.

In addition to the above-named completed projects we have rendered great assistance to stockmen during severe snowstorms by breaking trails and roads in order to haul feed to stranded stock. We have also participated in flood-relief work, fire fighting and the eradication of destructive insects.

The Division of Grazing has recognized from the beginning the importance of education and training of CCC enrollees during the course of their enrollment. They are given instruction in the use of tools and machinery, drafting, clerical work, and related duties. Some of them have equipped themselves for responsible positions in both private and public employment. After all, the principal objective of the CCC is to rehabilitate the youth of the land who are in need of guidance and encouragement. Thousands of enrollees have left Division of Grazing camps to accept gainful employment and become useful citizens.

HEARINGS ON APPEALS

by J. H. Leech, Chief Hearings Officer

The procedure developed by the Division of Grazing for hearing complaints, protests, and appeals against actions taken by its administrative officers personifies the democratic principles of the Taylor Grazing Act. This procedure safeguards the interest of the United States and at the same time furnishes the vehicle for settling grievances that are bound to arise in the apportionment of range privileges in an equitable manner compatible with the law. To illustrate:

Bill Smith believes that he has not been treated fairly. He files what is termed an appeal. This appeal may be merely a letter outlining to some extent what he believes is an erroneous action on the part of the local administrative officer. This complaint or appeal is gone over thoroughly by the district grazier and also by a range examiner, and, in many instances, it is found that the complaint is just and correction or adjustment is made.

In many cases, after thorough examination and review of the complaint, the local administrative officer is still of the opinion that his original decision was correct, and a local hearing is necessary. Smith is then afforded an opportunity to present his case. The regional grazier or district grazier may also offer evidence in support of the previous action, and a record of the proceedings is made. Each witness testifies under oath and is subject to cross examination by any of the interested parties.

Upon termination of the local hearing, a decision is rendered by the examiner, either affirming, modifying, or reversing the previous action of the local officers of the Division of Grazing.

An appeal may be taken from the decision of the examiner to the Secretary of the Interior. Under this method of local hearing, a complete record giving a picture of the

exact conditions and the circumstances upon which the examiner based his findings of fact and decision is always available for review by the Department.

The interests of conservation and preservation of national resources are fully protected under this local hearing and appeal procedure.

As an example, an allotment may be made to an applicant for 190 head of livestock, yearlong. Facts may be established in the local hearing showing the carrying capacity of the Federal range within the boundaries of the allotment to be only 100 head. This mistaken action in granting the greater number is immediately corrected and the license is adjusted to fit the carrying capacity of the lands of the United States, thus preventing a continued abuse of this valuable national resource.

On the other hand, an applicant may have received a license for a considerably smaller number of livestock than he applied for, and, due to insufficient facts or to improper interpretation of the facts, his means of livelihood have been crippled. By the hearing method, however, there is afforded to him an opportunity to be heard, and, through the development of facts not previously known, his license is adjusted accordingly.

From facts developed in local hearings, new and valuable information may be presented which guides the Department and the Division of Grazing in formulating a comprehensive policy for the benefit of the land and the people who make a living from it.

As a result of facts developed in local hearings, the Division adopted a policy of settling innocent trespasses through the method of propositions of settlement. Such is now provided for under section 11 of the Federal Range Code. This section further provides that licenses or permits may be reduced or vacated for continuous or willful violation of the rules and regulations. This action is not taken, however, until the alleged violator or trespasser is afforded the opportunity of a local hearing before an examiner. In cases of this nature, appeals are taken from the decision of the examiner to the Director of Grazing and from the Director of Grazing to the Secretary of the Interior.

Local hearings lead to the promulgation of decisions, orders, and instructions to guide Federal officials in their future actions. Decisions of the Department establish precedents for action to be taken in the future on cases of a similar nature.

Copies of all decisions on grazing cases are distributed to advisory boards and regional offices for information and record purposes.

Anyone who attends a local hearing or reads a decision resulting from one is necessarily impressed by the fairness which results in the applicant's receiving a "square deal."

The hearing procedure under sections 9 and 11 of the Federal Range Code is working very satisfactorily. During the year 1936 there were 789 appeals from the action of the local administrative officers. The majority of these cases, however, were disposed of, but these appeals arose prior to the adoption of the present procedure, which originated on May 10, 1937.

In the year 1937, there were 640 appeals from the action of local administrative officers, and of this number 61 appeal records reached the Department. During the year 1938, 564 appeals were filed from action of local administrative officers. Appeals from decisions of the examiner resulted in only 40 appeal records reaching the Secretary.

For the first six months of the year 1939, 265 appeals have been filed. Of this number there has been one appeal to the Department, but there have been five additional notices of appeal.

Thus in the four years mentioned, in considering a total of nearly 75,000 cases, there have been only 2,258 cases or 3 per cent that have reached the status of a formal hearing.



Enrollees from Camp DG-14, Oreana, Idaho, at work on Little Harts Reservoir. This reservoir will serve for stock water and will check erosion on Little Harts Creek. The rock work in the gorge is from 50 to 60 feet high and the spillway pours over solid rock. This photograph was part of the CCC exhibit at Fort Hunt, Virginia, which was viewed by the King and Queen of England.

GRAZING IN AUSTRALIA

by Marvin Klemme,

Regional Grazier on Leave of Absence

The area of Australia is approximately the same as that of the United States but supports less than 7 million people. About two-thirds of these people are located in the cities or larger towns along the coast, which means that the great interior of Australia is very sparsely settled. The population is 97 percent British stock, and, with the exception of the few thousand aborigines, the population is all white. About half of the aborigines are located on "Reservations", and the remainder are employed on the big sheep and cattle "Stations", generally receiving as pay only miscellaneous food, clothing, tobacco, et cetera.

Australia, with the exception of a narrow fringe along the coast and a couple of irrigation projects, is a "big man's" country. Many of the stations (ranches) contain one-half million acres of deeded land fenced and cross fenced. In the case of Crown lands (public domain), the ranches are generally much larger, running up to as much as 3 million acres.

The principal reason for these large holdings is the small carrying capacity of the range and the unfavorable climatic conditions. I spent a couple of days on one large sheep station that was running 150,000 sheep and quite a bunch of cattle. One cow outfit runs 75,000 head.

Droughts sometimes extend over a period of years and have completely wiped out many outfits. Much of the country receives less than 8 inches of rainfall per annum. In severe droughts, the stock are driven out largely and disposed of at a great sacrifice. To some extent, the heat in the interior is as bad as the drought. It is not uncommon at all for the thermometer to register as high as 120 degrees, and, this summer, during the awful forest and brush fires, it registered as high as 130 degrees in the interior and 110 degrees on the sea coast.

In spite of its handicaps, Australia has achieved many things of which it may be justly proud. About 85 percent of Australia's sheep are Merinos which have been bred for a fine quality of wool. The manner in which the wool is sheared, graded, and baled, and

the way the wool sales are conducted are all very remarkable and are one of the reasons Australia has a strong foothold on the world's wool market. The fact that this country competes successfully with America in the wool trade is due almost entirely to the quality of the wool and not to cheap labor or an appreciable lower cost of production. The climate of most of the country is not adaptable to the production of good mutton, and, for this reason, many of the wethers are kept for wool production. The average clip is about 8½ pounds per head.

Most of the country is level to rolling so that it is unnecessary to use pack horses; instead sulkies (one-seated buggies) are used in which the "Drover" (herder) transports his supplies. The efficient manner in which the Australian sheep dog has been trained is simply unbelievable. The only predatory animal is the "Dingo" or wild dog which at times does considerable damage to sheep and even kills young calves. It resembles a yellow cur dog and is thought to have been brought to Australia by the aborigines from Asia hundreds of years ago. The domesticated Dingo is regarded as a valuable food animal by the aborigines.

Hares and rabbits do much damage to the range. These were brought into this country as household pets and gradually increased to the point where they became a serious menace. The Government pays out rabbit bounties each year, and millions of Australian rabbit skins are shipped to the United States annually. Kangaroos and emus (Australian ostrich) are still found in considerable number in the interior. Both of these animals can give a good race horse keen competition at any time.

One of the most unusual things about the country is the very distinct mirages. Looking out across the level desert country on a hot afternoon, one can see great numbers of "large lakes." Some people even go as far as to say that they can see trees along the shore lines with small boats sailing on the water.



Edward N. Kavanagh
Chief, Branch of Range Management

Edward N. (Ed) Kavanagh was born in Leadville, Colorado, on September 15, 1883, and has spent the major part of his life in close contact with the range livestock industry. From a cattle ranch in South Park in Colorado he entered the Forest Service in 1906 and since that time with few interruptions his work has been entirely on range and related problems as an executive officer. He has at times been stationed or has worked in all the Western States except California and Montana. He transferred to the Division of Grazing on May 23, 1939, from Ogden, Utah, where he had been stationed for the past year after serving for 20 years as Chief of Range Management, Forest Service, in Oregon and Washington.

A strong partisan of the cooperative method of working out the complex range and land problems of the West, his chief interest lies in developing sound practical methods for using western range lands. His wide experience in dealing with stockmen and his knowledge of the conservation and economic problems in the West should be very helpful in handling the range management work under the Taylor Grazing Act.

REORGANIZATION

The plan for reorganization of the Division of Grazing was approved by the Secretary of the Interior, Harold L. Ickes, on May 13. The new organization plan is built around a strong range-control and development structure with the essential business and related services needed to make the Division function properly. Designed on a functional basis with strengthened coordination between the Director's office in Washington and the field units, the plan sets up a framework of coherency and responsibility that flows from the district grazer through appropriate channels on up to the Director.

The plan continues the present handling of field administration from nine regional (State) offices. The administration of the Taylor Grazing Act requires full cooperation with State and local agencies and involves contacts with State legislative activities and agencies, planning boards, State land boards, educational institutions, livestock and game officials, and related associations. By retaining the regions on a State basis, the Division of Grazing is in a position to obviate possible confusion and dissatisfaction that might arise through the overlapping authority and responsibility that would result if several States or parts of States were included in one region. The efficiency and strength of field offices will be enhanced and the program will be coordinated by chiefs of branches who will travel in the field from Washington.

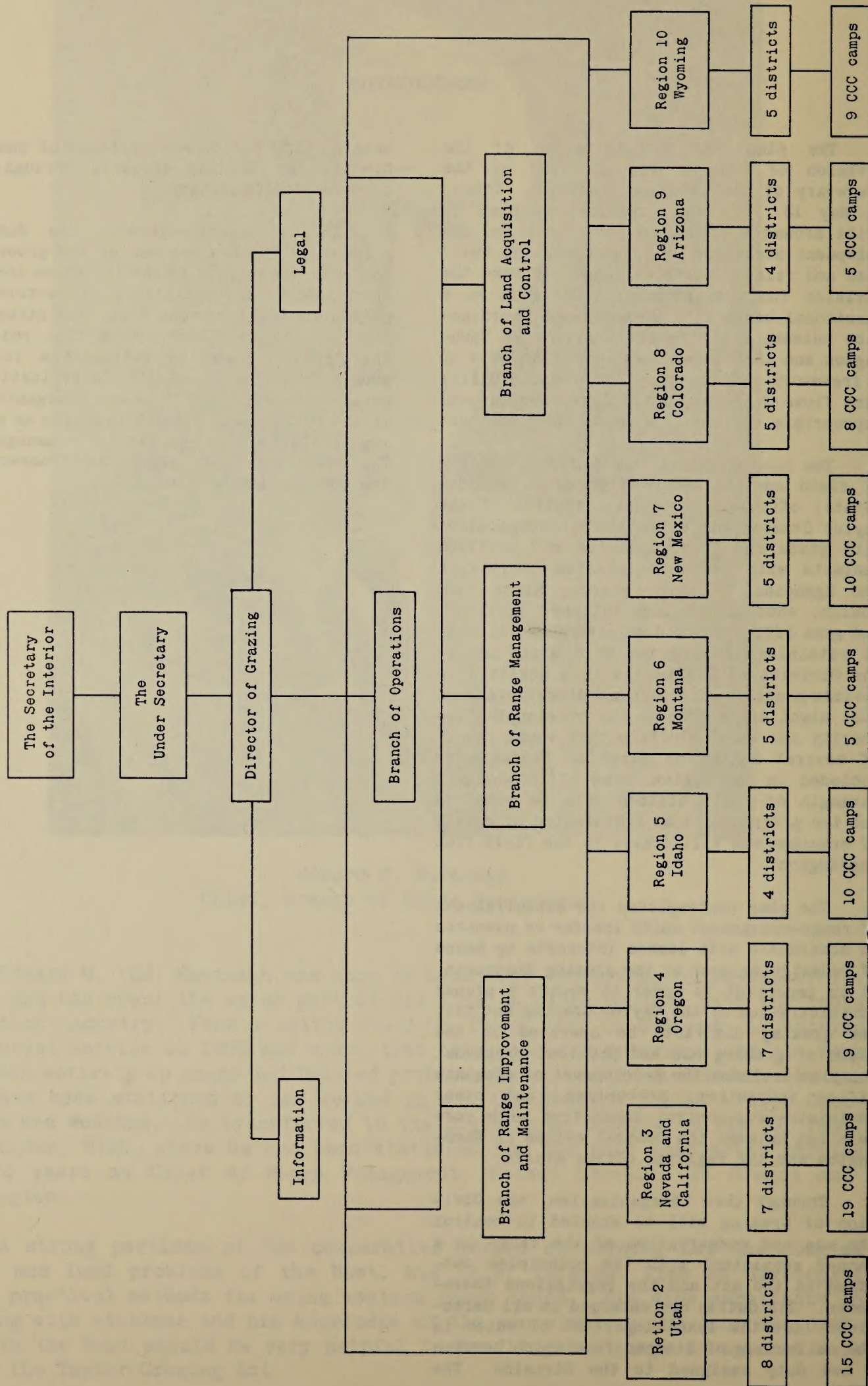
The plan contemplates the establishment of range-management units insofar as possible in accordance with common interests by means of redesigning some of the grazing districts. It is important in order to secure a proper administration of the Taylor Grazing Act that the grazing districts be operated on the basis of grazing use and physical problems. The plan includes the development of adequate office inspection, accounting, and other administrative-control facilities with correlation between the central office in Washington and the regional office staffs.

Through this reorganization, the Division of Grazing will be enabled to control the use and conservation of the range in a manner consistent with the principles outlined in the act and the regulations thereunder. Its duties are enlarged in all directions, not the least important of which is the collection of license fees which becomes a new duty assigned to the Division. The

General Land Office was relieved of handling Division of Grazing accounts through this order of the Secretary.

In the last analysis, the district grazer is the contact man on the ground who delivers the service to the livestock industry and conducts the activities of restoration, protection, improvement work, and stabilization in the territory. From that point to the Director, who is responsible for the program's success and the determination of policy, the effect of this new reorganization in the Division of Grazing presages an enduring influence in public-land management. The following chart shows the framework of the reorganization plan.

CHART OF ORGANIZATION OF DIVISION OF GRAZING, DEPARTMENT OF THE INTERIOR



FUNCTIONAL ORGANIZATION

OFFICE OF THE DIRECTOR:

Inaugurate and carry out plans and policies under the direction of the Secretary of the Interior for the conservation, development, and management of the Federal range (142 million acres) and additional lands administered in cooperation with the Federal and State agencies and private individuals as required by the Taylor Grazing Act of June 28, 1934, as amended. Direct the classification of public lands for the purpose of determining their agricultural suitability and recommend their disposition under existing law. Direct a program of rehabilitation of the natural resources and stabilization of the livestock industry consistent with policies formulated in the public interest and in a manner designed to benefit and harmonize the viewpoints of interested associations, individuals, and agencies concerned with the use of the public range. (These activities pertain principally to the States of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, and Wyoming, and are administered through the nine grazing regions subdivided into 50 grazing districts. They involve the supervision and direction of 1,700 technical and administrative employees, 18,000 CCC enrollees engaged in improvement and maintenance activities, and the control of 20,000 permits covering the grazing use of the range by 11 million livestock). Inaugurate cooperative agreements with State and Federal agencies, local associations, societies, groups, and individuals and direct the analytical study of the range to determine carrying capacities and preserve and improve the water, soil, forage, wildlife, and other resources, and preserve antiquities, in the furtherance of the above program.

Information

Prepare and disseminate official information on all matters pertaining to the conservation, development, and management program of the Division of Grazing in accordance with Departmental procedure; inform the interested public and the Division of Grazing personnel regarding the aims and activities of the grazing program; promote educational activities through the preparation of material for dissemination through or with the approval of the Division of Information; promote cooperation between business, industrial, recreational, wildlife, and livestock interests in accordance with the Taylor

Grazing Act; prepare material for the information of the Secretary of the Interior concerning the progress of the conservation program; cooperate with other bureaus, divisions, and offices of the Department; and supervise the informational field activities of the Division.

Legal

Act as legal advisor to the Director; review and prepare reports on proposed legislation affecting the Division of Grazing; Draft and prepare proposed legislation, forms, rules, and regulations, deemed necessary to the administration of the Taylor Grazing Act. Prepare and review contracts, damage claims, and cooperative agreements with individuals, livestock associations, and Federal and State agencies, including the general business of the Division. Review trespass proceedings; prepare section 4 permits; make legal interpretations of legislation, rules, regulations, and orders affecting the administration of the Federal range.

BRANCH OF OPERATIONS:

Assist the Director in the general administrative functions of the Division and correlate the program of the three technical branches from the standpoint of administration and general business procedure. Supervise all fiscal and personnel matters of the Division, including the preparation and presentation of the annual budget, justification and defense of estimates before the Budget Bureau and appropriation committees of Congress; coordinate training program and supervise in-service training; generally supervise and coordinate administrative work in field units and Washington office; allotment of appropriations; supervise procurement of equipment and supplies; control of expenditures in accordance with predetermined policies; formulate and direct accident-prevention and fire-hazard reduction programs; make organization and office management studies and recommendations; prepare office orders, administrative regulations, manuals, and administrative correspondence. Custody of general records; receipt and dispatch of mail, and the maintenance of statistical and progress records.

BRANCH OF RANGE MANAGEMENT:

Supervise and direct grazing and related uses on the Federal range and additional areas administered under cooperative agreements with Federal, State, and other landowners; correlate Federal range usage with functions of the Interior Department and with other proper land uses. Plan and supervise range surveys and studies relating to the growth, restoration, protection, management, and utilization of range resources on Federal lands; develop erosion control measures, and supervise such range experiment stations as are established on the public domain by the Division of Grazing. Inspect and coordinate range management field activities. Hold hearings and render decisions on protests and appeals from administrative decisions of the Division of Grazing. Prepare and compile instructions, manuals, and estimates of expenditures relating to range management and wildlife. Provide for organization of and cooperation with advisory boards of stockmen. Cooperate with Federal, State, and private agencies on all matters pertaining to the range management program.

BRANCH OF RANGE IMPROVEMENT AND MAINTENANCE:

Supervise and direct all range-improvement programs involving the construction and maintenance of work projects on the Federal range and additional areas administered under cooperative agreements with Federal, State, and other landowners; supervise improvement project planning and approve improvement work programs covering expenditures from various available funds; supervise issuance of improvement construction permits; secure the proper distribution and operation of CCC camps and related projects with respect to the management needs of Federal and other lands within grazing districts. Liaison with the Director, CCC; Department representative, Advisory council, CCC; Department coordinator; and other Departmental and technical agencies. Supervise the safety and vocational training of the CCC enrollees; compile and prepare instructions, manuals, and estimates of expenditures pertaining to the range-improvement program; make inspections of camp, force account, private and cooperative improvement projects, and correlate construction and engineering standards in connection therewith.

BRANCH OF LAND ACQUISITION AND CONTROL:

Supervise and direct all matters relating to acquisition, exchange, and classification of lands, including the leasing of county, State, and privately owned lands; secure rights-of-way and easements; approve recommendations for establishment and adjustment of grazing district boundaries; determine and approve withdrawals, execute land planning, approve special uses including recreation, and inaugurate and put into effect plans for timber management; prepare land status, maps, surveys, and generally supervise necessary drafting functions; compile instructions and manuals; develop cooperative agreements relating to the use of grazing land owned and controlled by other Federal agencies, States and private individuals; prepare estimates of expenditures relating to the land program.

REGIONAL OFFICES:

Under direction of the Director of Grazing, regional grazer is responsible for the administration of a region in carrying out the purposes of the Taylor Grazing Act in the conservation and regulation of the public domain in accordance with established policy and procedure. Supervise apportionment of public range privileges; supervise research on range carrying capacities and proper utilization of natural resources; direct the construction of range improvements. Provide adequate measures for the prevention and control of fire; disseminate information regarding functions, rules, regulation, and correlated activities of the Division of Grazing; acquaint local livestock and business organizations with the aims and purposes of the Division; enter into contracts and agreements with private individuals, groups, associations, State and Federal agencies. The breakdown in the regional offices will be the same as that in the Washington office as far as range management, range improvements and maintenance, and land acquisition and control are concerned.

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